

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1. (Previously presented) A differential transistor pair circuit having resistive load elements coupled to collectors thereof, the improvement comprising:

an inductor coupled in series with each of the resistive load elements, such that the inductors are coupled to each other by mutual inductance.

2. (Previously presented) The differential transistor pair circuit of Claim 1 where the inductors are coupled out-of-phase to the collectors of the transistors.

3. (Original) A differential circuit having a compound load, comprising: a differential pair of transistors having emitters coupled together; a load resistor coupled to a collector of each transistor; and an inductor coupled in series with each of the load resistors, where the inductors are magnetically coupled together.

4. (Previously presented) The differential circuit of Claim 3 wherein the inductors are coupled out-of-phase to the collectors of the transistors.

5. (Original) The differential circuit of Claim 3 further comprises a common current source connected to the emitters of the transistors.

6. (Original) The differential circuit of Claim 3 wherein a differential signal of opposite polarity is applied to bases of the transistors.

7. (Original) The differential circuit of Claim 3 further comprises a buffer stage operable to reduce loading of the collectors of the transistors.

8. (Previously presented) A method for increasing bandwidth of a differential transistor pair circuit having resistive load elements coupled to collectors thereof, comprising:
connecting an inductor in series with each of the resistive load elements; and
magnetically coupling the inductors together.

9. (Previously presented) A differential circuit having a compound load, comprising:
a differential pair of transistors having emitters coupled together;
a load resistor coupled to a collector of each transistor; and
a transformer having a pair of inductors coupled to each other by mutual inductance and each coupled in series with one of the load resistors.

10. (Previously presented) The differential circuit of Claim 9 wherein the inductors are coupled out-of-phase to the collectors of the transistors.

11. (Previously presented) The differential circuit of Claim 9 further comprises a common current source connected to the emitters of the transistors.

12. (Previously presented) The differential circuit of Claim 9 wherein a differential signal of opposite polarity is applied to bases of the transistors.

13. (Previously presented) The differential circuit of Claim 9 further comprises a buffer stage operable to reduce loading of the collectors of the transistors.